

Claims

1. A guideway carrier with a sliding surface (14, 19) provided with a coating and destined for magnetically levitated vehicles (4), which at least have one sliding skate (8) each
5 destined for setting-down onto said sliding surface (14, 19), with said coating being provided at least in an outer area with an additional material that is compatible to the sliding skate material and which reduces friction and wear.
2. A guideway carrier according to claim 1, characterized in that said additional material
10 contains graphite and/or polytetrafluorethylene.
3. A guideway carrier according to any of preceding claims 1 or 2, characterized in that said coating is configured in several layers and has at least one outer layer (17, 23) comprised of polyurethane, epoxy, or acrylate resin modified with said additional material.
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4. A guideway carrier according to claim 3, characterized in that the outer layer (17, 23), depending on the sliding surface material, is comprised of 30 % by wt. to 50 % by wt. of graphite as additional material.
- 20 5. A guideway carrier according to claim 3, characterized in that the outer layer (17, 23), depending on the sliding surface material, is comprised of 10 % by wt. to 40 % by wt. of polytetrafluorethylene as additional material.
- 25 6. A guideway carrier according to any of the preceding claims 3 to 5, characterized in that said coating is comprised of a second layer (16, 22) located beneath said outer layer (17, 23) and acting as adaptor layer and made of epoxy resin modified with said additional material.
- 30 7. A guideway carrier according to claim 6, characterized in that the second layer (16, 22), depending on the sliding surface material, is comprised of 10 % by wt. to 30 % by wt. of graphite as additional material.

8. A guideway carrier according to claim 6, characterized in that the second layer (16, 22), depending on the sliding surface material, is comprised of 10 % by wt. to 40 % by wt. of polytetrafluorethylene as additional material.

5 9. A guideway carrier according to any of the preceding claims 3 to 8, characterized in that said coating is comprised of a third epoxy-based inner layer (15, 21) immediately applied onto said sliding surface (14, 19) and configured as wash primer.

10 10. A guideway carrier according to claim 9, characterized in that said sliding surface (19) is made of steel and that the third layer (23) is configured as anti-rust wash primer.

11. A guideway carrier according to any of the preceding claims 1 to 10, characterized in that said coating has a maximum film thickness of 1 mm in total.

15 12. A magnetic levitation railway with a guideway comprised of a plurality of guideway carriers (11, 18) provided with sliding surfaces (14, 19) and having at least one magnetically levitated vehicle (4) having at least one sliding skate (8) destined for setting-down onto said sliding surfaces (14, 19), characterized in that said guideway carriers (11, 18) are configured according to one or several claim(s) of the preceding claims 1 to 11.

20 13. A magnetic levitation railway according to claim 12, characterized in that said sliding skates (8) of said magnetically levitated vehicles (4) are made of a carbon fiber-reinforced carbon enriched with SiC.

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